

22. The system of claim 19, further comprising: a network; and a remote monitoring facility operatively coupled to said diagnostic device through said network to receive said unit status from said diagnostic device.

23. A method, comprising: determining occupancy of a building with a processor, wherein the building has an air treatment system with a fan; determining operational status of the fan with the processor; calculating an outdoor air fraction of the system with the processor; determining validity of the outdoor air fraction with the processor; determining outdoor air fraction status with the processor by comparing the outdoor air fraction to a required outdoor air fraction for the building; determining current mode status with the processor by comparing the outdoor air fraction with current mode of operation of the system; determining unit status of the system with the processor based at least on the occupancy of the building, the operational status of the fan, the validity of the outdoor air fraction, the outdoor air fraction status, and the current mode status; and providing output based at least in part on the unit status.

24. The method of claim 23, wherein: said determining operational status of the fan includes receiving a fan signal from a fan sensor operatively coupled to the processor; said determining the occupancy of the building includes determining validity of the fan signal; and said determining the unit status is based on the validity of the fan signal.

25. The method of claim 23, wherein said calculating the outdoor air fraction includes: measuring a return air temperature in the system with a return air

temperature sensor operatively coupled to the processor;
measuring an outdoor
air temperature in the system with an outdoor air temperature
sensor
operatively coupled to the processor; measuring a mixed air
temperature in the
system with a mixed air temperature sensor operatively
coupled to the
processor; and wherein the outdoor air fraction is based on
the difference
between the mixed air temperature and the return air
temperature divided by the
difference between the outdoor air temperature and the return
air temperature.

26. The method of claim 25, wherein: said determining the
unit status includes
validity checking the return air temperature, the mixed air
temperature and the
outdoor air temperature; and the unit status is based on
said validity
checking.

27. The method of claim 23, wherein: said determining the
outdoor air fraction
status includes establishing that the outdoor air fraction is
less than the
required outdoor air fraction; and said determining the unit
status
establishing the unit status as low outdoor air supply.

28. The method of claim 23, wherein said providing the
output includes
displaying the unit status in a status page at a remote
monitoring facility.

29. A system comprising: means for calibrating a remote
sensor interface by
determining one or more calibration delay times for said
remote sensor
interface; means for sending a first signal to said remote
sensor interface;
means for receiving a second signal from said remote sensor
interface in
response to said first signal; means for timing a delay
between said first and
second signals, wherein said delay corresponds to a sensor
reading; and means

for determining said sensor reading based on said delay and said calibration delay times.

30. A system, comprising: means for determining occupancy of a building, wherein said building has an air treatment system with a fan; means for determining operational status of said fan; means for calculating an outdoor air fraction of said system; means for determining validity of said outdoor air fraction; means for determining outdoor air fraction status by comparing said outdoor air fraction to a required outdoor air fraction for said building; means for determining current mode status by comparing said outdoor air fraction with current mode of operation of said system; and means for determining unit status of said system based at least on said occupancy of said building, said operational status of said fan, said validity of said outdoor air fraction, said outdoor air fraction status, and said current mode status.